# Claims

1.  For a system wherein a packet is transmitted across a network along an access chain constituted by a plurality of connections, an access chain tracing method comprising the steps of:

comparing the size of the data in a packet at the time a first connection is made with the size of the data in a said packet at the time a second connection is made; and

employing the comparison result to determine whether said first connection and said second connection are to be included in the same chain.

2.  The access chain tracing method according to claim 1, wherein said comparison step includes a step of calculating a difference between a first series, which is specified based on said data size and a detection time of said packet at said first connection, and a second series, which is specified based on said data size and a detection time of said packet at said second connection; and wherein, at said determination step, said difference is employed to determine said first and said second connections are to be included in the same chain.

3.  The access chain tracing method according to claim 1, further comprising steps of:

receiving first packet data that includes said data

size and said detection time of said packet at said first connection;

searching comparison packet data based on said detection time included in said first packet data that are received; and

selecting a packet at said second connection based on the search results obtained at said search step.

4.    The access chain tracing method according to claim 1, wherein said detection time is specified by a time stamp included in packet data, and said data size is specified by a sequence number.

5.    The access chain tracing method according to claim 1, wherein said comparison step includes a step of sequentially comparing said first series with a plurality of segments of said second series that are formed by shifting the first term.

6.    An access chain tracing method comprising the steps of:

recording first packet data that include the size of the data in a packet at a first connection and a detection time for said packet;

recording second packet data that include the size of the data in said packet at a second connection and a detection time for said packet;

transmitting said first packet data that are recorded;

receiving said first packet data;

comparing said first packet data with said second packet data to determine what change there was in the size of the data in said packet at the time of said first connection and in the size of the data in said packet at the time of said second connection;

employing the comparison result obtained at said comparison step to determine whether said first connection and said second connection are included in the same chain; and

transmitting the determination result obtained at said determination step.


7. A computer-readable storage medium on which a program is stored to permit a computer to perform the method for an access chain tracing method comprising the steps of:

comparing the size of the data in a packet at the time a first connection is made with the size of the data in a said packet at the time a second connection is made; and

employing the comparison result to determine whether said first connection and said second connection are to be included in the same chain.


8. For a system wherein a packet is transmitted across a network along an access chain constituted by a plurality of connections, an access chain tracing system comprising:

a comparator for comparing the size of the data in a packet at the time of a first connection with the size of

the data in said packet at the time of a second connection; and

a determiner for employing the comparison result obtained by said comparator to determine whether said first connection and said second connection are included in the same chain.

9.    The access chain tracing system according to claim 8, wherein said comparator calculates a difference between a first series, which is specified based on said data size and a detection time of said packet at said first connection, and a second series, which is specified based on said data size and a detection time of said packet at said second connection; and determiner employs said difference to determine said first and said second connections are to be included in the same chain.

10.    The access chain tracing system according to claim 8, further comprising:

a receiver for receiving first packet data that includes said data size and said detection time of said packet at said first connection;

a transmitter for transmitting the results obtained by said determiner.

11.    The access chain tracing system according to claim 10, further comprising:

a searching unit for searching comparison packet data based on said detection time included in said first packet

data that are received; and

a selector for selecting a packet at said second connection based on the search results obtained at said searching unit.

12. The access chain tracing system according to claim 8, wherein said detection time is specified by a time stamp included in packet data, and said data size is specified by a sequence number.

13. The access chain tracing system according to claim 8, wherein said comparator sequentially compares said first series with a plurality of segments of said second series that are formed by shifting the first term.

14. For a system wherein a packet is transmitted across a network along an access chain constituted by a plurality of connections, an access chain tracing system comprising:

a recording unit for recording packet data that include information concerning packet size and detection time;

a transmitter for transmitting said packet data to a different site for a determination to be made; and

a receiver for receiving the determination result from said different site.

15. A network system comprising:

a first collection device for collecting first packet data that include the size of data in packet and a detection

time, and for transmitting said first packet data;

a second collection device for collecting second packet data that include the size of data in said packet and a detection time; and

a calculation system for comparing said first packet data with said second packet data to determine what change there was in the size of the data in said packet at the time of a first connection and in the size of the data in said packet at the time of a second connection, and for employing the comparison result to determine whether said first connection and said second connection are included in the same chain.

16. The network system according to claim 15, wherein said calculation system calculates a difference between a first series, which is specified based on said data size and a detection time of said packet at said first connection, and a second series, which is specified based on said data size and a detection time of said packet at said second connection, and employs said difference to determine said first and said second connections are to be included in the same chain.